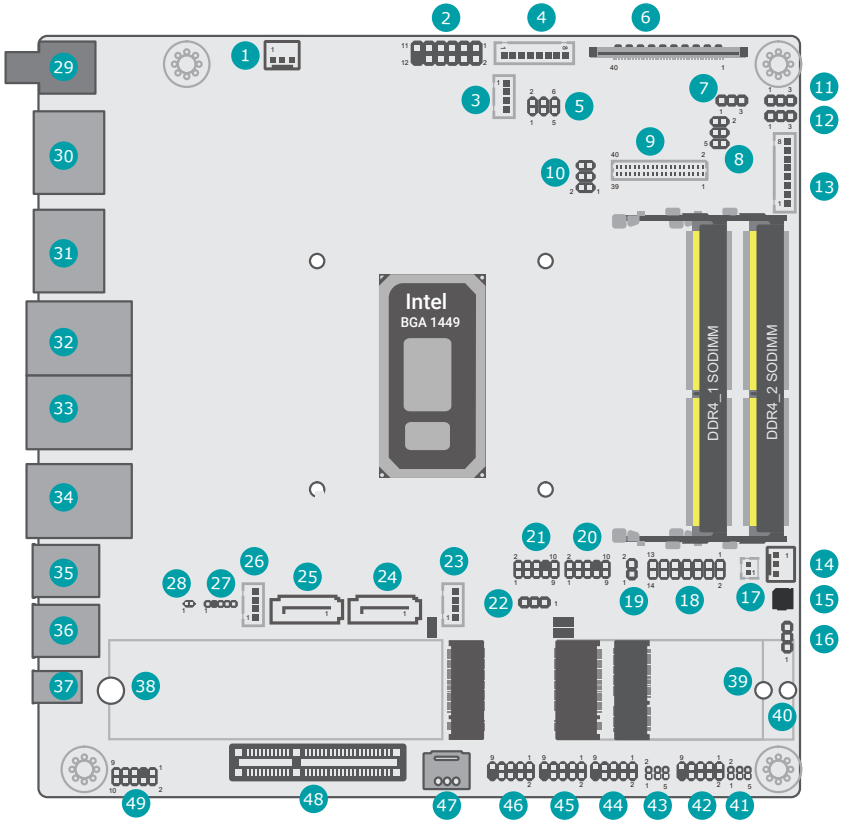


Board Layout



- | | | | |
|------------------------------|-----------------------|-------------------------|---------------------|
| 1 CPU FAN | 13 LCD/Inverter Power | 25 SATA0 | 37 USB Type-C |
| 2 Front Panel | 14 System FAN | 26 SATA0 Power | 38 M.2-M |
| 3 Digital I/O Power | 15 Buzzer | 27 Debug | 39 M.2-E |
| 4 Digital I/O | 16 Clear CMOS | 28 Debug | 40 M.2-B |
| 5 SMBus | 17 Battery | 29 DC-in | 41 COM4 RS232 Power |
| 6 eDP | 18 Debug Card | 30 DP++ | 42 COM4 |
| 7 eDP Inverter Power | 19 CASEOPEN- | 31 HDMI | 43 COM3 RS232 Power |
| 8 Panel Power Jumper | 20 USB 7/8 | 32 LAN1 | 44 COM3 |
| 9 LVDS | 21 USB 5/6 | 33 LAN2 | 45 COM2 |
| 10 Innoage HDR1 | 22 SATA Selection | 34 2.5G LAN1 | 46 COM1 |
| 11 Panel Inverter Power | 23 SATA1 Power | 35 USB 1/2 (USB3.0/2.0) | 47 SIM slot |
| 12 Panel Backlight Selection | 24 SATA1 | 36 USB 3/4 (USB3.0/2.0) | 48 PCIe x4 |
| | | | 49 Front Audio |

Jumper Settings

16 Clear CMOS

Normal (default)	JP1	1-2 On
Clear CMOS Data		2-3 On

41 43 COM 3/4 RS232 Power

Standard RS232 (default)	JP2 / JP3	1-3 & 2-4 On
RS232 with Power		3-5 & 4-6 On

7 eDP Inverter Power

+12V (default)	DPJP1	1-2 On
5V		2-3 On

11 Panel Inverter Power

5V (default)	DPJP2	1-2 On
12V		2-3 On

8 Panel Power Jumper

12V	DPJP3	1-2 On
5V		3-4 On
3.3V (default)		5-6 On

12 Panel Backlight Selection

3.3V (default)	DPJP4	1-2 On
5V		2-3 On

22 SATA Selection

M.2 Key B (default)	JP8	1-2 On
SATA1		2-3 On

*It can be able to swap each function below in BIOS

	JP8	SATA0	SATA1	M.2_B KEY	
1-2	SATA0 (via PCIe11)	N/A	PCIe x1/SATA (controlled by M.2 Pin69)		USB3.0 (from PCIe Switch)
2-3	SATA0 (via PCIe11)	SATA1 (via PCIe12)	N/A		USB3.0 (from PCIe Switch)
1-2	N/A	N/A	PCIe x2 (via PCIe11/12)		

Pin Assignment

3 Digital I/O Power

Pin	Function	Pin	Function
1	+12V	2	GND
3	5VSB	4	5V

4 Digital I/O

Pin	Function	Pin	Function
1	DIO_0	5	DIO_4
2	DIO_1	6	DIO_5
3	DIO_2	7	DIO_6
4	DIO_3	8	DIO_7

5 SMBus

Pin	Assignment	Pin	Assignment
1	3V3SB	2	GND
3	SMB_CLK	4	SMB_DATA
5	SMB_ALERT	6	--

2 Front Panel

	Pin	Assignment	Pin	Assignment
	1	N.C.	2	3V3SB
	3	3V3	4	3V3SB
HDD-LED	5	HDD_LED	6	Power_LED
	7	Ground	8	Ground
RESET	9	RESET	10	Power_Button
	11	N.C.	12	---

46 45 COM 1/2

Pin	RS232	RS422 Full Duplex	RS485
1	DCD-	TX-	Data-
2	RD	TX+	Data+
3	TD	RX+	N.C
4	DTR-	RX-	N.C
5	GND	GND	GND
6	DSR-	N.C	N.C
7	RTS-	N.C	N.C
8	CTS-	N.C	N.C
9	RI-	N.C	N.C

19 CASEOPEN-

Pin	Function	Pin	Function
1	CASEOPEN-	2	GND

21 USB 5/6

Pin	Assignment	Pin	Assignment
1	5V	2	5V
3	USB2_5_C_N	4	USB2_6_C_N
5	USB2_5_C_P	6	USB2_6_C_P
7	GND	8	GND
9	---	10	N.C.

20 USB 7/8

Pin	Assignment	Pin	Assignment
1	5V	2	5V
3	USB2_7_C_N	4	USB2_8_C_N
5	USB2_7_C_P	6	USB2_8_C_P
7	GND	8	GND
9	---	10	N.C.

44 42 COM 3/4

Pin	Function	Pin	Function
1	X_MDCD3(4)#	2	MSIN3(4)#
3	MSO3(4)#	4	MDTR3(4)#
5	GND	6	MDSR3(4)#
7	MRTS3(4)#	8	MCTS3(4)#
9	X_MRI3(4)#	10	--

26 23 SATA0/1 HDD Power

Pin	Assignment	Pin	Assignment
1	+12V_SATA	2	GND
3	GND	4	5V_SATA

49 Front Audio

Pin	Assignment	Pin	Assignment
1	Mic2-L	2	GND
3	Mic2-R	4	N.C.
5	Line2-R	6	Mic2-JD
7	GND	8	---
9	Line2-L	10	Line2-JD

13 LCD/Inverter Power

Pin	Assignment
1	GND
2	GND
3	Panel Inverter Brightness Voltage Control
4	Panel Power
5	+3.3V
6	Panel Backlight On/Off Control
7	12V / 5V (default)

9 LVDS

Pin	Assignment	Pin	Assignment
1	GND	2	GND
3	LVDS_A3+	4	LVDS_B3+
5	LVDS_A3-	6	LVDS_B3-
7	GND	8	GND
9	LVDS_A2+	10	LVDS_B2+
11	LVDS_A2-	12	LVDS_B2-
13	GND	14	GND
15	LVDS_A1+	16	LVDS_B1+
17	LVDS_A1-	18	LVDS_B1-
19	GND	20	GND
21	LVDS_A0+	22	LVDS_B0+
23	LVDS_A0-	24	LVDS_B0-
25	GND	26	GND
27	LVDS_CLK1+	28	LVDS_CLK2+
29	LVDS_CLK1-	30	LVDS_CLK2-
31	GND	32	GND
33	LVDS_DDC_CLK	34	NC
35	LVDS_DDC_DATA	36	+3.3V
37	Panel Power	38	Panel Power
39	Panel Power	40	Panel Power

6 eDP

Pin	Assignment	Pin	Assignment
1	--	2	GND
3	eDPA_LANE3_C_N	4	eDPA_LANE3_C_P
5	GND	6	eDPA_LANE2_C_N
7	eDPA_LANE2_C_P	8	GND
9	eDPA_LANE1_C_N	10	eDPA_LANE1_C_P
11	GND	12	eDPA_LANE0_C_N
13	eDPA_LANE0_C_P	14	GND
15	eDPA_AUXP_C	16	eDPA_AUXN_C
17	GND	18	EDP_VDD
19	EDP_VDD	20	EDP_VDD
21	EDP_VDD	22	--
23	GND	24	GND
25	GND	26	GND
27	eDPA_HPDP	28	GND
29	GND	30	GND
31	GND	32	EDP_BKLTEN
33	EDP_BKLTCTL	34	--
35	--	36	eDP_INV_PWR
37	eDP_INV_PWR	38	eDP_INV_PWR
39	eDP_INV_PWR	40	--

BIOS Variation

BIOS	Interface Support	Remark
Default support SATA/PCIe*	SATA0 + M.2 Key B*/SATA1	by JP8
Option support PCIe2	M.2 key B(PCIe x2)	JP8 1-2 only

*Note: The effective signal depends on the device installed on M.2 Key B



DFI reserves the right to change the specifications at any time prior to the product's release. This QR may be based on the product's revision. For more documentation and drivers, please visit the download page at www.dfi.com/downloadcenter, or via the QR codes to the right.

